

MIKHKIYEV, A.I.; KOIVUNEN, T.M.

On drainage practices for swampy soils in Finland. Gidr. 1 mel. 14
no.1:62-64 Ja '63. (MIRA 16:2)

1. Karel'skaya sel'skokhozyaystvennaya opytnaya stantsiya.
(Finland—Drainage)

PERMINOV, A.Ye.; ROMANOV, A.A.; MIZEROV, A.V.; TSYBA, M.M.;
ZHELUDKOV, A.S.; NEKRASOV, V.V.; PRASOLOV, M.I.;
BARTENEV, S.N.; BELYAYEVA, T.P.; ZHERDEV, P.A.;
KOYVILINEN, T.M.; SMORODOV, P.V., redaktor; POD'YEL'SKAYA,
K.M., tekhn. red.

[Manual for a Karelian field crop grower] Spravochnik
karel'skogo polevoda. Petrozavodsk, Karel'skoe knizhnoe
izd-vo, 1962. 435 p. (MIRA 17:3)

KOZ, YA. L.

USSR/Pharmacology. Toxicology. Drugs Affecting Blood U-5
Coagulation.

Abs Jour : Ref Zhur-Biol., No 7, 1958, 32971

Author : Koz Ya. L., Barkagan Z. C.

Inst : Not given

Title : On the Therapy of Post-Operational Hemorrhages
with Preparation from the Venom of the Snake
of the Genus Vipera.

Orig Pub : Vesti. oto-rino-laringologii, 1957, No 5, 97-101.

Abstract : The hemorrhagic action of the venom of the
snake (*Vipera lebetina*) was tested under clinical
conditions after the harmlessness of the
diluted venom when applied locally was proven,
and a method was found to sterilize the poison
by treating it with chloroform. The venom of
the snake (1) in dilutions of 0.001 to 0.01%

Card 1/2

USSR/Pharmacology. Toxicology. Drugs Affecting Blood U-5
Coagulation

Abs Jour : Ref Zhur-Biol., No 7, 1958, 32971

Abstract : was applied to 100 patients during roto-rhino-laringolitis operations (including 87 tonsilectomies). A tampon moistened with the solution of 1 was applied to the hemorrhaging area; as a rule the bleeding ceased within 30 to 60 seconds. 1 failed to produce a hemostatic effect only in 3 patients (in arterial hemorrhages from the matrix of the tonsils after tonsilectomy). The authors recommend the application of 1 in the form of a 0.1% solution in tonsilectomies and in surgery of malignant tumors, and in the form of a 0.004% solution in slight nasal hemorrhages. The mechanism of the hemostatic action of 1 is analogous to that of thromboplastin.

Card 2/2

Z/038/62/000/001/003/003
D291/D304

AUTHORS: Hynst^V, Arnošt^V (Deceased), and Koza, František^V

TITLE: Fast neutron detector

PERIODICAL: Jaderná energie, no. 1, 1962, 22-23

TEXT: The article, based predominantly on Western sources, describes a modified window-type beta counter tube used in Czechoslovak laboratories as a low-cost instrument for fast-neutron detection. A Geiger-Müller counter was modified by placing a thin paraffin layer in front of the tube window. The passing neutrons transfer a portion of their energy by elastic collision to the hydrogen and carbon atoms of the paraffin. Since the carbon atoms have a small range in the given medium, they do not enter the tube. The hydrogen atoms, however, have a greater range at the same energy, penetrate the window, and can be recorded by the counter. The amount of registered pulses is then commensurable to the neutron flux, and depends on the mass of the paraffin layer. The efficiency of this modified counter was tested with a Ra - Be neutron source

Card 1/2

Z/038/62/000/001/003/003

D291/D304

Fast neutron detector

and is better than 0.04%. Minimum neutron energies detected were 0.8 mev at a window mass of 1.26 mg/cm² (FHZ - 15b counter tube) and 2.7 mev at a window mass of 4.6 mg/cm² (Tesla GM 30/50 counter). The background count caused by gamma radiation of the neutron source amounted to 7% of the total recorded pulses. (Technical Editor: P. Javorský). There are 3 figures and 4 references, 1 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language publications read as follows: B.Rhody - I.J. Hopkins: Proton Recoils from Paraffin Radiators Bombarded by Neutrons. Radiation Research 2 (1955), p. 523-533; W.C. Miller: Geiger - Mueller Counter Pulse Size. Rev. Sci. Instr. 14 (1943), pp 68-78; L.H. Gray - J. Read: Measurement of Neutron Dose in Biological Experiments. Nature 144 (1939), p. 439.

ASSOCIATION: Vojenská akademie A. Zápotockého, Brno (A. Zápotocký
Military Academy, Brno) (F. Koza)

Card 2/2

L 33695-66 T CG/DJ/WE/WW/JW
 ACC NR: AP6024206 SOURCE CODE: CZ/0043/65/000/011/0833/0839

AUTHOR: Kovar, Milan (Engineer; Brno); Hynst, A.--Ginsht, A.; Koza, Frantisek (Brno)

ORG: Antonin Zapotocky Military Academy, Brno (Vojenska akademie) 45
 B

TITLE: Determination of hydrogen content in hydrocarbons on the basis of an
 interaction of neutron radiation with the substance

SOURCE: Chemické zvesti, no. 11, 1965, 833-839 14

TOPIC TAGS: analytic chemistry, hydrocarbon, neutron radiation, radiation chemistry

ABSTRACT: The method is based on the slowing down and dispersion
 of neutrons; in the experimental installation a Ra-Be (50 mg Ra)
 neutron source was used. The intensity of the secondary proton
 radiation leaving the investigated substance is measured; this
 radiation results from the interaction of the neutrons with
 hydrogen atoms. The intensity of the radiation is not influenced
 by the specific weight of the hydrocarbon. The accuracy of the
 method is within 2%; it may not be used when atoms other than
 C and H are present. The method is suitable for continuous
 analyzing of such hydrocarbons as fuels and lubricating oils.//

Orig. art. has: 3 figures, 5 formulas, and 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: 03May65 / ORIG REF: 003 / SOV REF: 002

Card 1/1 PB 0915 1857

KOZA, J.; RAMPAS, J.

Some characteristics of the Motol virus. Cesk. epidem. 14 no.5:
266-269 S '65.

1. Ustav epidemiologie a mikrobiologie, Praha.

KOZA, J.; MOTEJLOVA, Anna

Some conditions of the growth of cells in suspension cultures.
Folia biol. (Praha) 10 no.2:143-151 '64

1. Institute of Epidemiology and Microbiology, Prague.

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KOZA, J.; MOTEJLOVA, A.

Growth of tissue cultures in media with delipidized milk. I.
Growth properties of different components of delipidized
milk. Cesk. epidem. 13 no.1:8-11 Ja'64.

1. Ustav epidemiologie a mikrobiologie, Praha.

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KOZA, J.; MOTEJLOVA, A.

Growth of tissue cultures in a medium containing delipidized milk.

II. Growth of cells of different origins in different media containing fraction 6 of dried fat-free milk. Cesk. epidem. 13 no.4: 201-208 JI '64.

1. Ustav epidemiologie a mikrobiologie, Praha.

KOZA, J.; RAMPAS, J.

Purification and concentration of the Motol virus. Cesk. epidem.
14 no.3:149-152 Ny '65

1. Ustav epidemiologie a mikrobiologie, Praha.

KOZA, A. M.

KOZA, A. M.: "The effect of penicillin and staphylococcal biospreparations on certain indexes of immunological reactivity of the organism." Molotov Medical Inst. Molotov, 1956. (Dissertation for Degree of Candidate in Medical Sciences).

Source: Knizhnaya letopis' No. 2 1956 Moscow

8(0), 21(4)

SOV/112-59-5-9219

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 5, p 113 (USSR)

AUTHOR: Kozachek, I. A., and Mikhaylov, M. A.

TITLE: Segregation of Supplies to Anode and Heater Circuits in a RARK Drill-Hole Probe

PERIODICAL: Razved. i promysl. geofiz., Nr 20, 1957, pp 71-73

ABSTRACT: To decrease battery consumption in working with detachable apparatus for radioactive logging supplied by a three-core cable, it is recommended that supplies of anode and heating circuits of the RARK probe be segregated. To this end, RARK equipment should be so remodeled that the storage battery is connected to the cable cores leading to "heater" and "ground" terminals, and that the anode circuits of the control bench and the probe are supplied separately. Due to a considerable voltage drop in the cable, the storage battery must have a voltage 12 v for the 12P4S tubes. The new supply circuit approximately halves anode-battery consumption. Detailed instructions for remodeling the RARK and making the new control circuit are given.

T.A.K.

Card 1/1

KOZACHEK, N. N.

USSR/Chemistry - Physical chemistry

Card : 1/1 Pub. 116 - 4/20

Authors : Natanson, E. M. and Kozachek, N. N.

Title : Stabilization of Bi-organosols in hydrocarbon media

Periodical : Ukr. khim. zhur. 20, Ed. 4, 363 - 369, 1954

Abstract : The conditions leading to stabilization of Bi-organosols in hydrocarbon media, obtained by the flotation method, are explained. The stabilization of the organosols was determined by their behavior in a field of centrifugal force and during their long-term storage in latent state. The relation, existing between the stability of Bi-organosols in toluene and vaseline media and the existence of an abnormal viscosity, is discussed. Two USSR references 1949-1952. Tables; graphs.

Institution : Acad. of Sc. Ukr-SSR, Institute of Gen. and Inorgan. Chemistry

Submitted : May 11, 1953

KOZACHEK, N. N.

fuel 3

Effect of sodium chloride on the process of peptization of humic matter in peat and brown coal. E. M. Natanson, B. P. Nekryash, and N. N. Kozachek. *Zhur. Priklad. Khim.* 29, 914-19 (1956).—Addn. of NaCl to humic matter of peat and brown coal already peptized by previous treatment with NaOH results in lowered yield of humates. The decrease is greater with higher concn. of NaCl (3-10%). However, a preliminary treatment of peat with 6% NaCl permits the use of but 3% NaOH, whereas the use of 10% NaCl requires but 2.5% NaOH for reaching the same concn. of humates as is obtained by the use of 10% NaOH alone. Thus pretreatment with aq. NaCl aids the formation of alk. humates. Simultaneous use of NaCl and NaOH results in a concn. of Na humates which is attained by the use of NaOH, followed by NaCl. The recommended treatment involves the use of aq. NaCl to form humates in the solid phase, followed by removal of excess NaCl which hinders peptization of humates; after such removal the humates are peptized readily by small amts. of NaOH. G. M. K.

KOZACHEK, N. N.,

"Organosols of Alloys," Kiev, 1958. (Dissertation presented and approved for the degree of Cand. Chem. Sci.) AN Ukr. SSR, Inst. Gen. and Inorganic Chem.

84673

9.4300 (1043, 1138, 1143)
5.2610 only 1213, 1228, 1043

S/020/60/135/001/026/030
B016/B067

AUTHORS: Natanson, E. M., Kozachek, N. N., and Bushin, V. V.
TITLE: Electrolytic Method of Producing the Highly Disperse
Intermetallic Compound MnBi ✓
PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 1, pp.137-139

TEXT: Intermetallic compounds of many metals are effective semiconductors, and have valuable magnetic properties, especially in the highly disperse state. The ferromagnetic properties of manganese-bismuth alloys have long been known (Ref. 1). They are caused by the formation of the intermetallic MnBi compound (Ref. 2). The manganese-bismuth alloys which contain a large amount of MnBi have a high coercive force and other valuable properties which increase with increasing dispersity of the alloys (Ref. 3). In the present paper, the authors give the results of investigations made by applying the electrolytic method in a two-layer bath (Ref. 6). The lower layer of the bath consisted of a hydrochloric solution of manganese- and bismuth chloride. The solution contained ammonium chloride (25 g/l) and urea (30 g/l). The upper layer consisted of a 0.2-0.7% solution of oleic
Card 1/5

84673

Electrolytic Method of Producing the Highly Disperse Intermetallic Compound MnBi S/020/60/135/001/026/030
BO16/BO67

acid in xylene. Fig. 1 shows the MnBi content in the cathode deposit as a function of the atomic ratio of the components in the electrolyte. Fig. 2 shows the dependence of this content on the current density. With the same current density, the ratio manganese : bismuth in the highly disperse cathode alloy deposit of these metals is smaller than in the corresponding electrolytes. The disperse cathode manganese-bismuth deposit was subjected to magnetic separation. In this connection, a small amount of ferromagnetic fraction was obtained. The presence of glycerin in the electrolytic bath raised the yield in this fraction (see Table 1), especially when the atomic ratio manganese : bismuth in the electrolyte was 85 : 15. This ratio was then 1 : 1 in the cathode deposit. Table 2 shows the results of the X-ray analysis. They indicate that the magnetic fraction of the disperse cathode MnBi deposit consists of metallic Bi, of the γ -modification of manganese, and of the intermetallic MnBi compound. There are 1 figure, 2 tables, and 7 references: 4 Soviet, 2 German, and 1 French.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk
USSR (Institute of General and Inorganic Chemistry of the
Academy of Sciences, UkrSSR)

Card 2/3

84673

Electrolytic Method of Producing the Highly Disperse Intermetallic Compound MnBi S/020/60/135/001/026/030
B016/B067

PRESENTED: July 18, 1960, by A. N. Frumkin, Academician

SUBMITTED: June 9, 1960

Card 3/3

NATANSON, E.M.; BUSHIN, V.V.; KOZACHEK, N.N.

Conditions for the formation of colloid particles of
intermetallic compounds [with summary in English]. Koll.
zhur. 23 no.4:442-447 J1-Ag '61. (MIRA 14:8)

1. Institut obshchey i neorganicheskoy khimii AN USSR,
Laboratoriya kolloidnykh metallov, Kiyev.
(Manganese--Bismuth alloys) (Colloids)

SHEKA, I.A., otv. red.; DELIMARSKIY, Yu.K., red.; KOZACHEK, N.N., red.;
NATANSON, E.M., red.; SHEYKO, I.N., red.; MATVIYCHUK, A.A.,
tekhn. red.

[Materials of the Technological Conference on the Use of
Zirconium and its Compounds in Industry] Materialy Nauchno-
tekhnicheskogo soveshchaniia po primeneniui tsirkoniia i ego
soedinenii v promyshlennosti, Kiev, 1960. Kiev, Izd-vo Akad.
nauk USSR, 1962. 97 p. (MIRA 15:4)

1. Nauchno-tekhnikeskoye soveshchaniye po primeneniuyu tsirko-
niya i yego soyedineniy v promyshlennosti, Kiev, 1960.
(Zirconium—Congresses)

SHEKA, I.A., otv. red.; DELIMARSKIY, Yu.K., red.; KOZACHEK, N.N.,
red.; NATANSON, E.M., red.; SHEYKO, I.N., red.; MATVIYCHUK,
A.A., tekhn. red.

[Applications of zirconium and its compounds in industry; materials]
Primenenie tsirkoniia i ego soedinenii v promyshlennosti; materialy.
Kiev, Izd-vo Akad. nauk USSR, 1962. 97 p. (MIRA 15:7)

1. Soveshchaniye pri gosplane GNTK i Akademii nauk USSR, Kiev, 1960.
(Zirconium--Industrial applications)

KOZACHNEK, P.S., starshiy leytenant meditsinskoy sluzhby

Forceps for suturing deep wounds. Voen.-med. zhur. no.9:62 S '55.
(SUTURES) (MLRA 9:9)
(FORCEPS)

Kozachenko, A.A.

NALIVKIN, V.D.; ROZANOV, L.N.; FOTIADI, E.E.; YEGOROV, S.P.; YENGURAZOV, I.I.; KOVALEVSKIY, Yu.S.; KOZACHENKO, A.A.; KONDRAT'YEVA, M.G.; KUZNETSOV, G.A.; KULIKOV, F.S.; LOBOV, V.A.; SOFRONITSKIY, P.A.; TATARINOV, A.G.; PRITULA, Yuriy Aleksandrovich, redaktor; DAYEV, G.A., vedushchiy redaktor; GENNAD'YEVA, I.M., tekhnicheskii redaktor.

[Volga-Ural oil-bearing region: Tectonics] Volgo-Ural'skaia neftenosnaia oblast'. Leningrad, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1956. 312 p. (Leningrad. Vsesoiuznyi neftianoi nauchno-issledovatel'skii geologo-razvedochnyi institut. Trudy, no.100) [Microfilm] (MLRA 10:4)

(Volga Valley--Petroleum geology)

(Ural Mountain Region--Petroleum geology)

L 10093-63 EWP(r)/EWT(m)/RDS APFTO

ACCESSION NR: AP3003168

5/0145/63/000/002/0051/0058

AUTHOR: Kozachenko, A. B. (Candidate of technical sciences)

50

TITLE: Designing cantilever constant-thickness plates by the method of stresses

SOURCE: IVUZ, Mashinostroyeniye, no. 2, 1963, 51-58

TOPIC TAGS: cantilever plates, constant-thickness plates, method of stresses

ABSTRACT: The shearing forces and bending moments of a built-in cantilever plate of isotropic material and constant thickness under a continuous load normal to its middle surface are determined by applying the method of stresses. The five unknown force and moment parameters are determined from three equations of equilibrium and two compatibility equations. From these a system of fourth-order partial differential equations is obtained and solved by the Bubnov-Galerkin method. The shearing forces and bending moments are then expressed in terms of a single (prevailing) bending moment, which thus determines the state of stress of the plate. The expression for this bending moment is derived for a cantilever constant-thickness plate under hydrostatic and uniform continuous loads. The coincidence of the results of analytical calculation with experimental data is noted. Orig. art. has: 3 figures and 28 formulas.

Card 1/2

SLIVETS, D.P.; KOZACHENKO, A.D., inzh. (Dnepropetrovsk)

Frogs have to be rectilinear. Put' i put. khoz. 9 no.12:12 '65.
(MIRA 19:1)

1. Nachal'nik puteobsledovatel'skoy stantsii, Dnepropetrovsk
(for Slivets).

KOSTSOVA, A.G.; KOZACHENKO, E.I.; OSINA, O.M.; VOLOKHOVA, V.P.; MASLOVA, L.D.

Alkanesulfo acids. Part 32: Some alkanesulfomorpholides. Zhur.
org. khim. 1 no.4:728-730 Ap '65. (MIRA 18:11)

1. Voronezhskiy gosudarstvennyy universitet.

KOSTSOVA, A.G.; KOZACHENKO, E.I.

Alkanesulfonic acids. Part 30: Synthesis and properties of some
esters of ethane- and α -chloroethanesulfonic acids. Zhur. ob.
khim. 34 no.10:3185-3187 O '64. (MIRA 17:11)

1. Voronezhskiy gosudarstvennyy universitet.

SPEKTOR, B.V.; RYAZANTSEV, V.I.; KOZACHENKO, G.A.

Automatic instrument for determining the coefficient of
heat conductivity of building materials and heat insulating
materials. Zav.lab. 28 no.1:104-105 '62. (MIRA 15:2)

1. Nauchno-issledovatel'skiy institut stroitel'nykh materialov
i izdeliy Akademii stroitel'stva i arkhitektury USSR.
(Building materials--Thermal properties)
(Insulating materials--Testing)

S/032/63/029/004/006/016
A004/A127

AUTHORS: Spektor, B.V., Ryazantsev, V.I., Kozachenko, G.A.

TITLE: Automation of the process of determining the coefficient of temperature conductivity of materials

PERIODICAL: Zavodskaya laboratoriya, no. 4, 1963, 447 - 449

TEXT: The coefficient of temperature conductivity is calculated by the equation $\alpha = K \cdot \frac{\ln t_1 - \ln t_2}{\tau_2 - \tau_1}$, where K - coefficient of the body shape, which is determined by shape and dimensions of the specimen; t_1 and t_2 - temperature difference between specimen center and surrounding medium at τ_1 and τ_2 respectively. If the temperature measurements at the given time τ_1 and τ_2 can be automated and magnitude t_1 maintained constant, it is possible to fully automate the process of determining the coefficient of temperature conductivity by the method of regular heat-exchange conditions. The authors suggest the design of an automatic installation for these measurements based on the 3NB-01 (EPV-01) electronic potentiometer, in the housing of which

Card 1/2

Automation of the process of ...

8/032/63/029/004/006/016
A004/A127

two time relays, an PHT-100 (RPT-100) electromagnetic relay, a contact group and an electromagnet are installed. The electric block diagram is presented and the operation of the device described. Tests showed that the straggling of results does not exceed $\pm 1.6\%$. There is 1 figure.

ASSOCIATION: Nauchno-issledovatel'skiy institut stroitel'nykh materialov i izdeliy Akademii stroitel'stva i arkhitektury UkrSSR
(Scientific-Research Institute of Structural Materials and Components of the Academy of Construction and Architecture, UkrSSR)

Card 2/2

KOZACHENKO, I.; VASIL'YEVA, N.

Good friendship. Prof.-tekh. obr. 21 no.9:32 S '64.

(MIRA 17:11)

1. Direktor gorodskogo professional'no-tekhnicheskogo uchilishcha No.4 g. Rostova-na-Donu (for Kozachenko). 2. Pomoshchnik direktora gorodskogo professional'no-tekhnicheskogo uchilishcha No.4 g. Rostova-na-Donu (for Vasil'yeva).

KOZACHENKO, Jerzy; NOWAKOWSKI, Wladyslaw

Changes in the ovary of the full-grown mouse under the effect of cytostatic agents (nitrogen mustard) and ionizing radiation. Ginek. Pol. 36 no.9:975-978 S '65.

1. Z Kliniki Chorob Kobietych i Poloznictwa CSK Wojskowej AM w Warszawie (Kierownik: doc. dr. med. J. Higier) i z Zakladu Radiologii CSK Wojskowej AM w Warszawie (Kierownik: doc. dr. med. S. Leszczynski).

KOZACHENKO, Jerzy; RYGLEWICZ, Anna

Studies on some enzymes in the 1st trimester of pregnancy. Ginek.
Pol. 36 no.7:721-723 J1'65.

1. Z Kliniki Polozniczo-Ginekologicznej Centralnego Szpitala
Klinicznego Wojskowej Akademii Medycznej w Warszawie (Kie-
rownik: doc. dr. med. J. Higier) i z Zakladu Analityki Central-
nego Szpitala Klinicznego Wojskowej Akademii Medycznej (Kie-
rownik: dr. med. N. Symonowicz).

KCZACHENKO, L. S.

Chemical Abst.
Vol. 48 No. 3
Feb. 10, 1954
Fuels and Carbonisation Products

The effect of physical factors on the rate of flame propa-
gation in the motor. L. S. Kozachenko. Izv. Akad.
Nauk S.S.S.R., Otdel. Tekh. Nauk 1953, 473-9. — Crit.
discussion of the effects of phys. factors on flame propa-
gation in the light work by Sokolik, et al. (O.A. 47,
8386). In a cycle-operated internal combustion motor
the visible flame front propagation does not give the com-
plete picture of the process. The variations of pressure,
temp., variable velocities of flame front, turbulence, and
other factors are important considerations. The assertion
that the max. rate of flame propagation corresponds to the
max. turbulence is incorrect, and the max. rate is achieved
at the end of the 2nd phase of combustion. The dependence
of flame propagation on pressure is not a simple reciprocal,
but that of reciprocal to -5 power: $U \propto 1/P^{-1/5}$.

G. M. Kozolapov

SOV/24-59-2-3/30

AUTHOR: Kozachenko, L. S. (Moscow)

TITLE: Influence of Flow Pulsations on the Turbulent Velocity of Flame Propagation (Vliyaniye pul'satsiy potoka na turbulentnuyu skorost' rasprostraneniya plameni)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1959, Nr 2, pp 21-25 (USSR)

ABSTRACT: A glow discharge anemometer, based on earlier models (Refs 1 and 2) for measuring the characteristics of turbulent flow is described and its performance examined. With the aid of the anemometer, and a special burner, supplemented by spark discharge observations, the effect of flow pulsations on turbulent flame propagation is measured. It is found that the flame velocity can be expressed as

$$u_T = u_H + u' + u'' \quad (0.1)$$

where u_H is the normal velocity of flame propagation, u' is the mean square pulsation of isothermal flow and u'' is

Card 1/2

SOV/24-59-2-3/30

Influence of Flow Pulsations on the Turbulent Velocity of Flame
Propagation

the supplementary pulsation generated by the flame. There
are 6 figures, 1 table and 7 references, 3 Soviet, 3 Eng-
lish and 1 German.

SUBMITTED: August 16, 1958.

Card 2/2

11.0000

78062

SCV/62-60-1-8/37

AUTHOR: Kozachenko, L. S.

TITLE: Combustion of Gasoline-Air Mixtures in a Turbulent Flow

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1960, Nr 1, pp 45-52 (USSR)

ABSTRACT: Flame propagation in a turbulent flow of gasoline-air mixture was studied. A photograph and description of a so-called "optical" burner used in the experiments are given. Photographs of the flame was taken according to Teplov. The experimental data obtained and their processing lead to the following conclusions. The total turbulence of isothermic advanced flow and that generated by flame velocity is very close to the theoretical. This confirms the physical conception advanced by G. Damkohler (Zeit. elektrochem. 46, s. 501 (1940)) and Shcheyelkin (Zh. tekhn. fiziki, 13, 520 (1943)) according to which the flame, in a turbulent flow, is propagated

Card 1/3

Combustion of Gasoline-Air Mixtures in a
Turbulent Flow

78062
SOV/62-60-1-8/37

by pulsating flow and by normal flame velocity. A direct interdependence between the turbulence generated by the flame and the normal rate of burning increases the significance of the latter in the propagation of flame in a turbulent flow. The rate of turbulent propagation of flame is determined by maximum velocity of the flame regions in relation to the combustible mixture. The flame regions encountering the fresh combustible mixture form a leading edge of the flame and serve as ignition sources for the completion of burning in the combustion zone on the flame surface distorted by pulsations. Yu. A. Bokhon participated in the experimental part of this work. There are 3 photographs; 4 tables; 3 figures; and 13 references, 5 U.S., 2 German, 6 Soviet. The 5 U.S. references are: D. T. Williams, L. M. Bollinger, Third Symposium on Combustion, Flame, and Explosion Phenomena, Baltimore, pg 176 (1949); B. Karlovitz, D. W. Denniston, F. E. Wells, J. Chem. Phys., 19, 541 (1951); D. B. Leason, Fuels, 30, 233, (1951); A. Scurlock, J. Grover, Fourth Symposium (International)

Card 2/3

Combustion of Gasoline-Air Mixtures in a
Turbulent Flow

78062
SOV/62-60-1-8/37

on Combustion (Combustion and Detonation Waves).
Baltimore, pg 645 (1953); M. Summerfield, S. N. Reiter,
V. Kebely, R. Mascolo, Jet Propulsion, 25, pg 377
(1955).

ASSOCIATION: Institute of Chemical Physics, Academy of Sciences
USSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

SUBMITTED: June 6, 1958

Card 3/3

KOZACHENKO, L.S.; SKACHKOV, G.I.

Flame propagation in two- and three-component gaseous mixtures
containing hydrogen, methane, nitrogen and nitrous oxide. PMTF
no.2:93-99 J1-Ag 60. (MIRA 14:6)
(Flame)

ZACNEGIN, V.L. (Moskva); KOZACHENKO, L.S. (Moskva); KOSTYUCHENKO, V.N.
(Moskva)

Experimental investigation of the development of a gas bubble and
crown in underwater explosions. PMTF no.2:120-124 JI-Ag 60.
(MIRA 14:6)

(Underwater explosions)

30995

S/124/61/000/009/016/058

D234/D303

AUTHORS: Babkin, V.S. and Kozachenko, L.S.

TITLE: Rise of detonation in gases in rough pipes

PERIODICAL: Referativnyy zhurnal. Mekhanika, no. 9, 1961, 70,
abstract 9 B512 (Zh. prikl. mekhan. i tekhn. fiz.,
1960, no. 3, 165-174)

TEXT: By means of "Schlieren" frame photography, pre-detonation spreading of flame in a rough half-closed square pipe are investigated. Two opposite walls of the pipe were made from plane-parallel optical glass, on the other two walls roughness was formed by gluing on brass chips or porcelain fractions. Combustible mixture of H, O and air was fed into the pipe through a mixer, the composition of the mixture being controlled with the aid of Venturi tubes. Ignition of the mixture was caused by a weak electric spark at the closed end of the pipe. As a result of the experiments it was established that the curves of the increase of the velocity of

Card 1/4

30995

S/124/61/000/009/016/058

D234/D303

Rise of detonation in gases...

flame spreading with time $v(t)$ for mixtures of different composition have a point of inflexion, i.e. the flame is intensely accelerated twice: once at the beginning of spreading and once at some interval before the instant of detonation. Characteristic is the variation of the extension of the domain of combustion δ which corresponds to these two stages of flame acceleration. In the first stage δ increases together with the flame velocity v , then, in the vicinity of the point of inflexion of the curve $v(t)$, there is a strong decrease of the extension of the domain of turbulent combustion. The second stage is again characterized by an increase of δ up to a certain maximum value. δ_{\max} , and, although the velocity of flame spreading increases further, the dependence $\delta(t)$ becomes decreasing. From this the authors conclude that at some interval before detonation the dimension of the domain of turbulent combustion decreases instead of increasing as assumed in many papers on pre-detonation spreading of the flame. The flame spreading in the second stage is described as accompanied by the formation of a shock wave near the flame front. At a determined velocity of the

Card 2/4

Rise of detonation in gases...

30995
S/124/61/000/009/016/058
D234/D303

shock wave which is reached in the process of acceleration, the mechanism of initial ignition of the mixture changes: The mixture begins to inflame with a very small period of induction on the rough surfaces immediately behind the shock wave which is followed by the gradual spreading of the flame towards the center of the section of the canal. A structure is formed which is called in the paper "the complex of turbulent flame with shock wave". The spreading of such a complex ends by detonation at its front. From an estimation of the state of gas in the interaction of the shock wave with artificial rough surfaces on the walls of the pipe and from the results of several complementary experiments, the conclusion is made that the principal part in the ignition of the mixture immediately behind the shock wave is played by the local rise of temperatures and pressure during reflection of this wave at the elements of roughness. In the first stages of flame spreading, roughness can, beside its part in the turbulization of the mixture, also retain volumes of fresh mixture in the layer at the walls, whose combustion behind the flame front increases the total surface of the flame and so

Card 3/4

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30995

S/124/61/000/009/016/058
D234/D303

Rise of detonation in gases...

leads to an increase of combustion velocity. It follows from the experimental results that in the last stage of the pre-detonation period the velocity of combustion is determined by the velocity of the shock wave at the front of the complex, which realizes, as it were, a continuous forced ignition of the mixture on the rough surfaces. The new domain of turbulent flame, so formed, develops and reinforces the shock wave to an intensity which is sufficient for detonation ignition. 20 references. [Abstracter's note: Complete translation]

Card 4/4

KOZACHENKO, L.S. (Novisibirsk)

Methods for measuring the propagation velocity of a turbulent
flame. PMTF no.3:112-117 S-0 '61. (MIRA 14:8)
(Flame) (Vortex motion)

BABKIN, V.S.; KUZNETSOV, I.L.; KOZACHENKO, L.S.

Effect of curvature on the rate of propagation of a laminar flame
in a poor propane-air mixture. Dokl. AN SSSR 146 no.3:625-627 S '62.
(MIRA 15:10)

1. Institut khimicheskoy kinetiki i goreniya Sibirskogo otdeleniya
AN SSSR. Predstavleno akademikom S.A.Khristianovichem.
(Flame) (Propane)

BABKIN, V.S. (Novosibirsk); KOZACHENKO, L.S. (Novosibirsk);
KUZNETSOV, I.L. (Novosibirsk)

Use of the constant-volume bomb technique in measuring flame
velocity. PMTF no. 6:128-131 N-D '63. (MIRA 17:7)

L-10633-6: EP/EPA(s)-2/RT(s)/RT(s)/ELR Pr-1/Pr-1/Pr-10 AEDC(b)/RAM(1)/
ASD(A)-5/ASD/AEDC(s) 04/04/88
ACCESSION NR: AP/011201 9/0207/64/000/003/0115/0115

AUTHORS: Babkin, V. S. (Novosibirsk); Kraschenko, L. S. (Novosibirsk);
Kuznetsov, I. L. (Novosibirsk)

TITLE: The effect of pressure on the normal burning velocity of a methane and air mixture

TOPIC TAGS: methane, methane burning velocity, combustible hydrocarbon, pressure effect, gas expansion coefficient, flame propagation, constant pressure bomb, schlieren system

ABSTRACT: The effect of pressure and temperature on the normal burning speed of a methane-air mixture was investigated for pressures from 1 to 60 atm and temperatures from 16 to 2200. High-speed motion picture photography aided by an optical-schlieren system was used to determine an apparent combustion velocity. The normal velocity was then computed as the quotient of the apparent velocity divided by the computed coefficient of expansion. In the pressure range of 1-60 atm, the normal velocity was found to be the 0.5 power ($p^{0.5}$) of the pressure. The

Card 1/2

L 10633-65
ACCESSION NR: AF 041204

constant pressure bomb, a thick-walled spherical chamber equipped with observation

constant pressure both, a thick-walled spherical chamber equipped with observation windows, was used in the experiments. Results include plots of normal speed versus percent methane concentration for parametric values of pressure and temperature; an additional plot relates normal velocity and temperature on logarithmic axes. Below 3 atmospheres pressure n was found to be slightly less than $\frac{1}{2}$ in the relationship $S_n \sim \text{const } p^{-n}$. At atmospheric pressure the maximum burning speed is equal to 30 cm/sec . Deviations in normal velocity may result from deviations in calculated expansion coefficients, hence the authors give values of apparent velocity corresponding to calculated normal velocities. Orig. art. has 5 figures.

ASSOCIATION: none

SUBMITTED: 15 Jul 63

ENCL: 00

SUB CODE: PP

REF ID: A6907: 003

OTHER: 011

Cord 2/2

L 4987-66 EPA/EWT(m)/EPF(c)/I/ENA(s) 01/01/VE

ACC NR: AP5026024

SOURCE CODE: UR/0405/65/000/001/0031/0043

AUTHOR: ^{44.5}Kozachenko, L. S. (Novosibirsk); ^{44.5}Kuznetsov, I. L. (Novosibirsk)

ORG: none

TITLE: Velocity of flame propagation in the turbulent flow of a homogenous mixture

SOURCE: Nauchno-tekhnicheskiye problemy goreniya i vzryva, no. 1, 1965, 31-43

TOPIC TAGS: turbulent burning velocity, combustion, ^{11 244.55}turbulent combustion, gas combustion

ABSTRACT: A theoretical and experimental study of turbulent combustion in homogenous gas mixtures was made to investigate discrepancies between measured data. These discrepancies are attributed to the following causes: neglect of the flow-line deviations in front of the inverse flame cone, inaccuracies in the determined turbulence characteristics, and the use of different methods for determining the flame boundary. The experiments in the present study were made with an assembly consisting of a convergent flow section, a turbulence grid, and a square combustion tube equipped with two flat quartz windows. The turbulence characteristics were measured with a hot wire anemometer capable of recording flow pulsations up to 65 kc. It was designed by the Department of Aerodynamics at the Leningrad Polytechnical Institute im. M. I. Kalinin. The experiments were made using propane-butane and hydrogen fuel. Turbulent burning velocities were measured by three different methods, and plots of the turbu-

Card 1/2

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L 4987-66

ACC NR: AP5026024

lent burning velocity vs. the fluctuating velocity were obtained. The following formula was found to correlate the experimental data with reasonable accuracy:

$$u_r = u' + \left(\frac{E-1}{\sqrt{3}} + 1 \right) u_n$$

where E is the expansion degree characterized by the density ratio of the fresh and burned gas mixtures, u_n is the normal burning velocity, u' is the fluctuating velocity, and u_r is the turbulent velocity. Orig. art. has 6 formulas and 15 figures. [PV]

SUB CODE: FE ME/SUBM DATE: 02Nov64/ ORIG REF: 009/ OTH REF: 001/ ATD PRESS: 4/5

CC

Card 2/2

L 6422-66 EWT(d)/EPA/EWT(m)/EPF(c)/EWP(f)/EWP(j)/T/EWA(c)/ETC(m) RPL

ACC NR: AP5026078 WW/JW/WE/RH

SOURCE CODE: UR/0405/65/000/002/0114/0117

AUTHOR: Babkin, V. S.; Kozachenko, L. S.

ORG: None

TITLE: Energy losses during explosions in a spherical bomb

SOURCE: Nauchno-tehnicheskiye problemy gorenlya i vzryva, no. 2, 1965/114-117

TOPIC TAGS: bomb, combustion, combustion theory, combustion kinetics, gas pressure, explosive charge

ABSTRACT: In the past, explosions within spherical bombs were used for the determination of various chemical and physical quantities such as heat capacity and dissociative heat. Recently, however, the combustion process proper became the subject of intensive theoretical research. A survey of numerous experimental data led V. F. Baybuz and V. A. Medvedev to the conclusions (ZhFKh, 1962, 36, 6; Tr. GIPKh, vyp. 49, Raboty po termodinamike i kinetike khimicheskikh protsessov, Goskhimizdat, L., 1962.) that energy losses caused by the incomplete combustion of the mixture in the boundary layers may be quite significant. Assuming that this viewpoint is correct, the authors of the present article derive simple formulas for the determination of the correction for the experimentally observed finite pressures within the bombs. The constant entering the basic formula can be obtained from a series of comparative tests. Orig. art. has: 13 formulas.

UDC: 541.126

Cdrd 1/100 SUB CODE: WA, FP, ME / SUBM DATE: 12Jan65 / ORIG REF: 006 / OTH REF: 002

L 08107-67 EWP(j)/EWT(1)/EWT(m)/FSS-2 RM/WE

ACC NR: AP6029755

(A)

SOURCE CODE: UR/0414/66/000/002/0052/0060

AUTHOR: Babkin, V. S. (Novosibirsk); V'yun, A. V. (Novosibirsk); Kozachenko, L. S. (Novosibirsk) 65

ORG: none

TITLE: Study of the effect of pressure on the normal burning velocity by the method of the initial section in a constant pressure bomb

SOURCE: Fizika goreniya i vzryva, no. 2, 1966, 52-60

TOPIC TAGS: combustion, flame, burning velocity, hydrocarbon fuel, *PRESSURE EFFECT*

ABSTRACT: Experiments in a constant volume bomb were made of the effect of pressure on the normal burning velocity of stoichiometric mixtures of benzene, n-heptane, and isooctane with air at 1-16 atm and an initial temperature of 150C. It was found that a linear relationship exists between the expansion coefficient of the combustion products and the terminal explosion pressure. This relationship can be expressed by the approximate formula

$$E_i = 0,85 \frac{p_e}{p_i}$$

Card 1/2

UDC: 536.46

L 08107-67

ACC NR: AP0629755

(p_i = initial pressure, p_e = terminal pressure). This formula permits the calculation of the normal burning velocity from the experimentally determined apparent flame speed and the terminal pressure. In all fuels tested, the normal burning velocity decreased with increasing pressure. The exponents in the relationship $S = p^n$ (S = normal burning velocity, p = pressure) ranged from -0.17 to -0.35 and for different fuels and pressure ranges. Orig. art. has: 11 formulas, 3 figures, and 1 table. [PV]

SUB CODE: 21/ SUBM DATE: 08Aug65/ ORIG REF: 008/ OTH REF: 008

Card 2/2ml

L 08107-67 EWP(1)/EWT(1)/EWT(m)/FSS-2 RM/WE

ACC NR: AP6029755

(A)

SOURCE CODE: UR/0414/06/000/002/0052/0060

AUTHOR: Babkin, V. S. (Novosibirsk); V'yun, A. V. (Novosibirsk); Kozachenko, L. S. (Novosibirsk)

ORG: none

TITLE: Study of the effect of pressure on the normal burning velocity by the method of the initial section in a constant pressure bomb

SOURCE: Fizika goreniya i vzryva, no. 2, 1966, 52-60

TOPIC TAGS: combustion, flame, burning velocity, hydrocarbon fuel, *PRESSURE EFFECT*

ABSTRACT: Experiments in a constant volume bomb were made of the effect of pressure on the normal burning velocity of stoichiometric mixtures of benzene, n-heptane, and isooctane with air at 1-16 atm and an initial temperature of 150C. It was found that a linear relationship exists between the expansion coefficient of the combustion products and the terminal explosion pressure. This relationship can be expressed by the approximate formula

$$E_t = 0,85 \frac{p_c}{p_i}$$

Card 1/2

UDC: 536.46

L 08107-67

ACC NR: AP0629755

(p_i = initial pressure, p_e = terminal pressure). This formula permits the calculation of the normal burning velocity from the experimentally determined apparent flame speed and the terminal pressure. In all fuels tested, the normal burning velocity decreased with increasing pressure. The exponents in the relationship $S = p^n$ (S = normal burning velocity, p = pressure) ranged from -0.17 to -0.35 for different fuels and pressure ranges. Orig. art. has: 11 formulas, 3 figures, and 1 table. [PV]

SUB CODE: 21/ SUBM DATE: 08Aug65/ ORIG REF: 008/ OTH REF: 008

Card 2/2 m/

ACC NR: AP7000644 SOURCE CODE: UR/0414/66/000/003/0077/0086

AUTHOR: Babkin, V. S. (Novosibirsk) Kozachenko, L. S. (Moscow)

ORG: none

TITLE: A study of the normal burning velocity of methane-air mixtures at high pressures

SOURCE: Fizika goreniya i vzryva, no.3, 1966, 77-86

TOPIC TAGS: combustion, gas combustion, methane, burning velocity, combustion pressure effect, *HIGH PRESSURE*

ABSTRACT: An experimental study was made of the burning velocities of methane-air mixtures at pressures of 1--70 atm, initial temperatures of 50--200C, and composition of 6--13% methane. The experiments were conducted in a spherical steel bomb 183 mm in diameter. The mixture was spark ignited, and the velocity was determined in the initial section. Some of the results are shown in Figures 1 and 2.

Card 1/4 UDC: 536.468

ACC NR: AP7000644

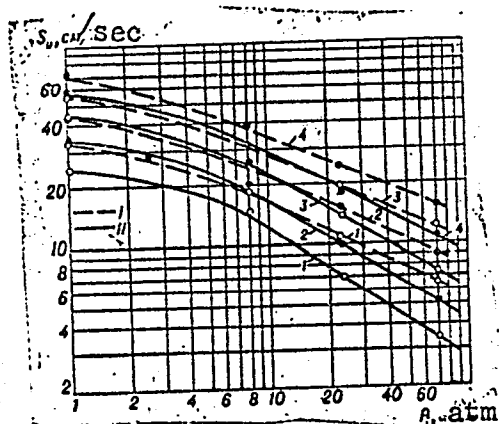


Fig.1. Dependence of the normal burning velocity S_u on the pressure and the temperature with mixtures containing 9.5% (I) and 8% (II) methane. 1- 50°; 2- 100°; 3- 150°; 4- 200°C.

Card 2/4

ACC NR: AP7000644

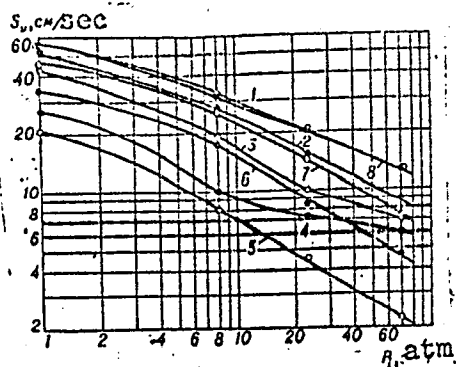


Fig.2. Dependence of S_u on the pressure and the methane content in the mixture at an initial temperature $T_1 = 1500^\circ$.
1- 1%; 2- 11%; 3- 12%; 4- 13%;
5- 6%; 6- 7%; 7- 8%; 8- 9.5% methane.

The pressure and temperature exponents in the correlations for the burning velocity were calculated on the basis of the thermal theory of flame propagation as a chain reaction with one active center. It was shown that the pressure exponent n is a function of the mixture composition, temperature, and pressure. In the 1--8 atm range, n decreases and in the 8 -- 70 atm range, it is practically constant. The exponent n has a maximum close to the stoichiometric composition. The tempera-

Card 3/4

ACC NR: AP7000644

ture exponent m is a function of the composition and pressure. The exponent m has a maximum of about 2 at a stoichiometric composition. Orig.art.has: 3 formulas and 5 figures.

[WA-68]

SUB CODE: 21/ SUBM DATE: 05Mar66/ ORIG.REF: 006/ OTH REF: 002

Card 4/4

ARTAMONOV, A.Ya.; KOZACHENKO, M.V.

Methods of determining the true resistance to compression of
porous ceramic metal materials. Porosh.met. 3 no.3:81-87 My-
Je '63. (MIRA 17:3)

1. Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR.

MASTYUKOVA, Yu.N.; SARAYEVA, N.T.; KOZACHENKO, N.F.; YAROSLAVSKAYA, N.V.;
RAYKHSHTADT, G.N.; SHVARTSMAN, M.N.

Study of the results of smallpox vaccination. Report No.2.
Vop. virus. 6 no.5:573-576 S-0 '61. (MIRA 15:1)

1. Moskovskiy institut epidemiologii, mikrobiologii i gigiyeny i
sanitarno-epidemiologicheskaya stantsiya Sverdlovskogo rayona Moskv.
(SMALLPOX)

KOLESNIKOVA, L.I.; MASTYUKOVA, Y.N.; KHOLCHEV, N.V.; KOZACHENKO, N.F.;
PETROVA, Ye.T.; KHAYLO, G.V.

Results of hyperimmunization of animals with measles virus.
Vop. virus. 10 no.1:87-90 Ja-F '65. (MIRA 18:5)

1. Moskovskiy nauchno-issledovatel'skiy institut epidemiologii
i mikrobiologii.

KOZACHENKO, N.F.

Harmlessness of γ -globulin prepared from serum mixtures including solitary sera from infectious hepatitis patients and reconvalescents. Zhur. mikrobiol., epid. i immun. 42 no.1:67-69 Ja '65.

(MIRA 18:6)

1. Moskovskiy institut epidemiologii i mikrobiologii.

MASTYUKOVA, B.N.; SARAYEVA, N.T.; KOZACHENKO, N.F.

Utilization of the hemagglutination inhibition reaction for the
titration of antimeasles antibodies. Vop.virus 7 no.4:114-116
Jl-Ag '62. (MIRA 15:8)

1. Moskovskiy nauchno-issledovatel'skiy institut epidemiologii i
mikrobiologii.
(MEASLES) (BLOOD--AGGLUTINATION) (ANTIGENS AND ANTIBODIES)

LATYSHEVA, V.A.; KOZACHENKO, N.I.

Heats of interaction of lanthanum perchlorate solutions
with perchloric and halogen acids. Vest. LGU 18 no.22:
135-139 '63. (MIRA 17:1)

KOZACHENKO, N.S.

BELOV, N.Ya.; ASSONOV, A.D.; CHIZHIK, A.I.; ZAMOTAYEV, S.P.; BUTOMO, D.G.;
 SERGEYEV, L.N.; rukovoditel' issledovatel'skoy gruppy; MASUROVA, A.I.;
 SHUBIN, G.N.; NOVIK, A.A.; PODSHIVALOV, R.N.; ALEKSO, A.I.; KUZ'MINA,
 L.I.; KORF, D.M.; KOZACHENKO, N.S.

Articles and suggestions of supervisors of central industrial
 laboratories. Zav. lab. 25 no.1:5-22 '59. (MIRA 12:1)

1. Nachal'nik TSentral'noy zavodskoy laboratorii Kirovskogo mashinostroitel'nogo zavoda (for Belov).
2. Glavnyy metallurg Avtozavoda imeni Idkhacheva (for Assonov).
3. Nachal'nik TSentral'noy zavodskoy laboratorii Leningradskogo metallichesko-
 zavoda imeni Stalina (for Chizhik).
4. Nachal'nik TSentral'noy zavodskoy laboratorii Uralmashzavoda, g. Sverdlovsk (for Zamotayev).
5. Nachal'nik TSentral'noy laboratorii zavoda "Krasnyy Vyborzhets" (for Butome).
6. Laboratoriya zavoda "Krasnyy Vyborzhets" (for Sergeyev).
7. Nachal'nik khimicheskoy laboratorii metallurgicheskogo zavoda imeni Petrovskogo (for Masurova).
8. Nachal'nik TSentral'noy laboratorii Verkh-Isetskogo metallurgicheskogo zavoda (for Shubin).
9. Zamestitel' nachal'-nika TSentral'noy zavodskoy laboratorii zavoda imeni Malysheva, g. Khar'kov (for Novik).
10. Zamestitel' nachal'nika TSentral'noy zavodskoy laboratorii Sverdlovskogo turbomotornogo zavoda (for Podshivalov).
11. Nachal'nik eksperimental'nogo otdela Spetsial'nogo konstruk-torskogo byuro Sverdlovskogo turbomotornogo zavoda (for Alekso).
12. Nachal'nik TSentral'noy laboratorii Okhtinskogo khimicheskogo kombinata (for Kuz'mina).
13. Nachal'nik TSentral'noy laboratorii zavoda "Krasnyy khimik" (for Korf).
14. Nachal'nik TSentral'noy zavodskoy laboratorii Kiyevskogo mashinostroitel'nogo zavoda "Dol'shevik" (for Kozachenko).

(Chemical engineering laboratories) (Testing laboratories)

25(0)

SOV/32-25-1-13/51

AUTHOR:

Kozachenko, N. S., Head of the Central Laboratory of the Kiyev
Machine Building Factory "Bol'shevik"

TITLE:

Articles and Suggestions of the Heads of the Central Works Laboratories in Connection With the Theses Laid Down by Party Member N. S. Khrushchev at the XXI Congress of the CPSU "Control Figures of the Development of National Economy of the USSR in the Years 1959-1965" (Stat'i i predlozheniya rukovoditeley Tsentral'nykh zavodskikh laboratoriy v svyazi s tezisami doklada tovarishcha N. S. Khrushcheva na XXI s'yezde KPSS "Kontrol'nyye tsifry razvitiya narodnogo khozyaystva SSSR na 1959-1965 gg.")

PERIODICAL:

Zavodskaya Laboratoriya, 1959, Vol 25, Nr 1, pp 21-22 (USSR)

ABSTRACT:

In the course of the seven-year plan the above mentioned factory is to double its 1958 production of machines and instruments for the processing of rubber and synthetics. The importance of the works central laboratory increases with that of the strength tests. Machines are tested in cooperation with the Institut stroitel'noy mekhaniki Akademii nauk USSR (Institute of Building Mechanics of the AS UkrSSR). The laboratory department for corrosion tests is going to be enlarged considerably. For the past two years the

Card 1/3

SOV/32-25-1-13/51

Articles and Suggestions of the Heads of the Central Works Laboratories in Connection With the Theses Laid Down by Party Member N. S. Khrushchev at the XXI Congress of the CPSU "Control Figures of the Development of National Economy of the USSR in the Years 1959-1965"

works laboratory has been already devised in cooperation with the Institut elektrosvarki imeni Patona (Institute of Electrowelding imeni Paton) and the kafedra svarki Kiyevskogo politekhnicheskogo instituta (Kiyev Polytechnical Institute, Chair of Welding) the automatization or semiautomatization of various welding processes (e.g. welding of two-layer steel St.3-1Kh18N9T). Measures are being adopted, whereby an abrupt increase of productivity is to be achieved in 1959, allowing the working day to be reduced to 7 hours for all workers. Thus, for example, spectrophotometric analysis, as compared to chemical analysis, allows to shorten the time required by the 8-10 fold. Analysis methods with the SF-4 spectrophotometer are devised in cooperation with the kafedra analiticheskoy khimii Kiyevskogo universiteta imeni Shevchenko (Chair of Analytical Chemistry at Kiyev University imeni Shevchenko).

Card 2/3

SOV/32-25-1-13/51
Articles and Suggestions of the Heads of the Central Works Laboratories in Connection With the Theses Laid Down by Party Member N. S. Khrushchev at the XXI Congress of the CPSU "Control Figures of the Development of National Economy of the USSR in the Years 1959-1965"

ASSOCIATION: Tsentral'naya laboratoriya Kiyevskogo mashinostroitel'nogo zavoda "Bol'shevik" (Central Laboratory of the Kiyev Machine Building Factory "Bol'shevik")

Card 3/3

KOZACHENKO, N.S.

In the laboratory of the "Bol'shevik" Kiev Factory.
Zav.lab. 26 no.7:898-900 '60. (MIRA 13:7)

1. Nachal'nik Tsentral'noy laboratorii Kiyevskogo
mashnostroitel'nogo zavoda "Bol'shevik".
(Kiev—Testing laboratories)

KOZACHENKO, N.S.

Our experience in competing for the title of communist
labor. Zav.lab. 28 no.10:1262-1263 '62. (MIRA 15:10)

1. Nachal'nik Tsentral'noy zavodskoy laboratorii
Kiyevskogo mashinostroitel'nogo zavoda "Bol'shevik."
(Chemical laboratories)

KOZACHENKO, V., kandidat tekhnicheskikh nauk; LYUBIN, Ye., inzhener.

Hydromechanical trenchless laying of large diameter water pipes.
Zhil.-kom.khoz. 5 no.8:20-21 '55. (MLRA 8:6)

1. Glavnyy inzhener Dnepropetrovskogo stroitel'no-montazhnogo
upravleniya No. 6 tresta "Ukrsantekhmontash" (for Lyubin).
(Water pipes)

KOZACHENKO, V.

Technical aid for rural construction. Sel'stroi. 15 no.1:4-6
Ja '60. (MIRA 15:7)

1. Nachal'nik Byuro tekhnicheskoy pomoshchi Glavnogo
upravleniya stroitel'stva Ministerstva sel'skogo khozyaystva
RSFSR.

(Farm buildings)

DORFMAN, G.S., inzh.; KOZACHENKO, V.G.; MARKOV, A.N.

Over-all mechanization of paper roll relcading. Mekh.1 avtom.
proizv. 18 no.2:21-24 F '64. (MIRA 17:4)

RODCHENKO, GOLDFAT, S.Yu.

Obtaining a phage-resistant strain of *Actinomyces aureofaciens*
producing chlortetracycline. Antibiotiki 10 no. 7: 586-589
Jl '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov,
Moskva.

KOZACHENKO, V.I.; MIKHAYLOVA, G.R.

Study of the phages of *Actinomyces aureofaciens* differing
as to the morphology of negative colonies. Mikrobiologiya
34 no.3:456-460 My-Je '65.

(MIR: 38:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov,
Moskva.

TETERYATNIK, A. F.; GOLDAT, S. Yu.; MIKHAYLOVA, G. R.; KOZACHENKO, V. I.

"Investigation of the action of phages on antibiotic-producing actinomycetes."

report submitted for Antibiotics Cong, Prague, 15-19 Jun 64.

All-Union Sci Res Inst of Antibiotics, Moscow.

LITVIN-MAKSYUTA, K.M.; GOSTISHCHEV, K.P.; KRYSENKO, N.S.; POLYAKOVA,
M.N.; ZUBENKO, K.L.; KOZACHENKO, V.K.; VASIL'IEVA, N.M.

Regeneration of xanthate from cobalt cake. TSvet, met. 38
no. 6:44-45 Jo '65. (MIRA 18:10)

KOZACHENKO, V.K., inzh.; KOKONIN, V.A., inzh.

Using precast construction elements in building water tanks
for cooling towers. Prom.stroi. 38 no.1:45 '60.
(MIRA 13:5)

1. Upravleniye stroitel'stva Permatroy, (for Kozachenko).
2. Stroitel'nyy uchastik No.14 tresta TSentrosputastroy (for Kokonin).
(Cooling towers) (Tanks)

KLIMOV, V. V.; DIDKOVSKAYA, O. S.; KOZACHENKO, V. N.

Determination of aluminum with salicylal o-aminophenol in
lead salts. Metod. anal. khim.reak. i prepar. no. 4:53-57
'62. (MIRA 17:5)

1. Donetskii filial Vsesoyuznogo nauchno-issledovatel'skogo
instituta khimicheskikh reaktivov i osobo chistykh
khimicheskikh veshchestv.

L 43040-66 EWP(e)/EWT(m)/EWP(t)/ETI IJP(c) WH/JD
 ACC NR: AP6029824 SOURCE CODE: UR/0363/66/002/008/1483/1486 53
 52
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 Substances, Donets Branch (Vsesoyuznyy nauchno-issledovatel'skiy institut
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TITLE: Preparation of piezo- and ferroelectric ceramics¹ using spray dried solutions

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 8, 1966,
 1483-1486

TOPIC TAGS: piezoelectric ceramic, ferroelectric ~~ceramic~~ ^{material}, ceramic technology,
 ceramic product property, barium titanate, titanate, lead, ~~titanate~~, calcium ~~titanate~~

ABSTRACT: A preparative method was described for piezo- and ferroelectric ceramic
 materials on the base of triple titanate of barium, lead, and calcium. The method
 was designed to replace the conventional ceramic sintering technique in view of its
 substantial disadvantages. The first step of the described method consisted of
 preparation of the finely dispersed (particle size 6-8 μ) powder of the basic
 barium, lead, and calcium nitrates by spray drying of their aqueous solutions
 following a technique invented by the authors [Author Certificate no. 901979-29-14,
 21.05.1964]. The powdered nitrates were then converted into titanates of varied

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composition by firing the nitrate powder at 900—1000C at which temperature formation of the solid solutions with perovskite structure is completed. The particle size of titanates after firing was about 1 μ . High-purity powders may be obtained from adequately pure starting materials. The sintering of these powders into ceramic products occurs at a temperature in the 1230—1280C range, which is 100—150C lower than the temperature range of sintering the powders produced by conventional ceramic technique. The electrophysical properties of the ceramic products obtained by spray drying were shown to be superior to those of the products of ceramic technology. Notably, the piezoelectric modulus (d_{31}) was comparatively higher and, in certain samples, constant in the -60 to +80C range. Universality of the method described was stressed, insofar as it may be applied to most of the ferro- and piezoelectric ceramics presently used. Orig. art. has: 4 figures and 2 tables. [JK]

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ATD Press 5065

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KLIMOV, V.V.; DIDKOVSKAYA, O.S.; KOZACHENKO, V.N.

Fluorescence determination of microgram amounts of aluminum
in lead salts. Zav.lab. 28 no.6:652-654 '62. (MIRA 15:5)

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reaktivov i osobo chistykh khimicheskikh veshchestv, Donetsk
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(Aluminum--Analysis)
(Lead salts) (Fluorescence)

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instituta (zav. kafedroy - zasluzhennyy deyatel' nauki RSRSR prof.
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Voronezhskogo meditsinskogo instituta.
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(MIRA 18:12)

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